

10602964\_QUAL

5022839 67  
4379900 64  
4801413 62  
4416139 60  
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6219586 54  
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10602964\_LIST

PLUS Search Results for S/N 10602964, Searched April 08, 2004

The Patent Linguistics Utility System (PLUS) is a USPTO automated search system for U.S. Patents from 1971 to the present. PLUS is a query-by-example search system which produces a list of patents that are most closely related linguistically to the application searched. This search was prepared by the staff of the Scientific and Technical Information Center, SIRA.

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4379900  
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10602964\_CLS

Most Frequently Occurring Classifications of Patents Returned  
From A Search of 10602964 on April 08, 2004

Original Classifications

4 700/182  
2 425/183

Cross-Reference Classifications

3 700/165  
3 700/179  
3 700/180  
3 700/83  
2 83/698.91  
2 264/177.17  
2 264/572  
2 425/185  
2 425/190  
2 425/196  
2 474/199  
2 700/110  
2 700/169  
2 700/206  
2 700/97

Combined Classifications

4 700/182  
3 425/190  
3 700/165  
3 700/179  
3 700/180  
3 700/206  
3 700/83  
2 83/698.91  
2 264/177.17  
2 264/40.7  
2 264/572  
2 425/183  
2 425/185  
2 425/196  
2 474/171  
2 474/199  
2 700/110  
2 700/169  
2 700/97

10602964\_CLSTITLES

Titles of Most Frequently Occurring Classifications of Patents Returned

From A Search of 10602964 on April 08, 2004

4 700/182 (4 OR, 0 XR)  
Class 700 : DATA PROCESSING: GENERIC CONTROL SYSTEMS OR  
SPECIFIC APPLICATIONS  
700/90 -----SPECIFIC APPLICATION, APPARATUS OR PROCESS  
700/95 .Product assembly or manufacturing  
700/117 ..Particular manufactured product or operation  
700/159 ....Machining  
700/180 ....Having operator interface feature  
700/182 .....Including CAD, CAM, or CIM technique

3 425/190 (1 OR, 2 XR)  
Class 425 : PLASTIC ARTICLE OR EARTHENWARE SHAPING OR  
TREATING: APPARATUS  
425/182 WITH APPARATUS ASSEMBLY OR DISMANTLING MEANS O  
R  
425/190 .WITH IDLE PART  
.For extrusion or injection type shaping means

3 700/165 (0 OR, 3 XR)  
Class 700 : DATA PROCESSING: GENERIC CONTROL SYSTEMS OR  
SPECIFIC APPLICATIONS  
700/90 -----SPECIFIC APPLICATION, APPARATUS OR PROCESS  
700/95 .Product assembly or manufacturing  
700/117 ..Particular manufactured product or operation  
700/159 ....Machining  
700/160 ....Having particular tool or tool operation  
700/165 .....Bending (e.g., press brake)

3 700/179 (0 OR, 3 XR)  
Class 700 : DATA PROCESSING: GENERIC CONTROL SYSTEMS OR  
SPECIFIC APPLICATIONS  
700/90 -----SPECIFIC APPLICATION, APPARATUS OR PROCESS  
700/95 .Product assembly or manufacturing  
700/117 ..Particular manufactured product or operation  
700/159 ....Machining  
700/179 .....Tool selection/change

3 700/180 (0 OR, 3 XR)  
Class 700 : DATA PROCESSING: GENERIC CONTROL SYSTEMS OR

10602964\_CLSTITLES  
SPECIFIC APPLICATIONS

700/90           SPECIFIC APPLICATION, APPARATUS OR PROCESS  
700/95           .Product assembly or manufacturing  
700/117           ..Particular manufactured product or operation

700/159           ....Machining  
700/180           .....Having operator interface feature

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3 700/206       (1 OR, 2 XR)  
Class 700 : DATA PROCESSING: GENERIC CONTROL SYSTEMS OR  
                  SPECIFIC APPLICATIONS  
700/90           SPECIFIC APPLICATION, APPARATUS OR PROCESS  
700/95           .Product assembly or manufacturing  
700/117           ..Particular manufactured product or operation

700/206           ...Pressing

3 700/83        (0 OR, 3 XR)  
Class 700 : DATA PROCESSING: GENERIC CONTROL SYSTEMS OR  
                  SPECIFIC APPLICATIONS  
700/1            GENERIC CONTROL SYSTEM, APPARATUS OR PROCESS  
700/83           .Having operator control interface (e.g.,  
                  control/display console)

2 83/698.91      (0 OR, 2 XR)  
Class 083 : CUTTING  
83/651           TOOL OR TOOL WITH SUPPORT  
83/698.11       .Joint or connection  
83/698.71       ..For rectilinearly reciprocating tool  
83/698.91       ...Tool is single element with continuous  
                  cutting edge (e.g., punch, etc.)

2 264/177.17     (0 OR, 2 XR)  
Class 264 : PLASTIC AND NONMETALLIC ARTICLE SHAPING OR  
                  TREATING: PROCESSES  
264/165           FORMING CONTINUOUS OR INDEFINITE LENGTH WORK  
264/176.1        .Shaping by extrusion  
264/177.1        ..To produce particular cross section (e.g.,  
                  noncircular, etc.)  
264/177.17       ...Processing or treatment after extrusion  
                  (e.g., support, guide, etc.)

2 264/40.7       (1 OR, 1 XR)  
Class 264 : PLASTIC AND NONMETALLIC ARTICLE SHAPING OR  
                  TREATING: PROCESSES  
264/40.1           WITH MEASURING, TESTING, OR INSPECTING  
264/40.7           .Controlling rate of movement of molding  
                  material or its support in a continuous pro

10602964 CLSTITLES

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2 264/572 (0 OR, 2 XR)  
Class 264 : PLASTIC AND NONMETALLIC ARTICLE SHAPING OR  
TREATING: PROCESSES  
264/500 DIRECT APPLICATION OF FLUID PRESSURE  
DIFFERENTIAL TO PERMANENTLY SHAPE, DISTORT  
OR SUSTAIN WORK

## , OR SUSTAIN WORK

264/572 .With internal application of fluid pressure

2 425/183 (2 OR, 0 XR)  
Class 425 : PLASTIC ARTICLE OR EARTHENWARE SHAPING OR  
TREATING: APPARATUS  
425/182 WITH APPARATUS ASSEMBLY OR DISMANTLING MEANS OR

R

WITH IDLE PART

425/183 .Plural wear or shaping surfaces mounted for alternative use

2 425/185 (0 OR, 2 XR)

Class 425 : PLASTIC ARTICLE OR EARTHENWARE SHAPING OR  
TREATING: APPARATUS

10

WITH IDLE PART

425/185 .Means permitting removal or substitution of elements during apparatus operation

2 425/196 (0 OB 2 XB)

Class 425 : PLASTIC ARTICLE OR EARTHENWARE SHAPING OR  
TREATING: APPARATUS

3

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425 (126) WITH IDLE PART

2 474/171 (1 QB, 1 XB)

Class 474 : ENDLESS BELT POWER TRANSMISSION SYSTEMS OR  
COMPONENTS

474/171 .And additional coaxial surface for engaging  
same belt in shifted condition or for enga

ing auxiliary

belt, brake, or clutch member

2 474/199 (0 OR, 2 XR)

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Class 474 : ENDLESS BELT POWER TRANSMISSION SYSTEMS OR  
COMPONENTS

474/166 FRICTION DRIVE PULLEY OR GUIDE ROLL

474/198 .With stationary support for pulley or guide  
roll

474/199 ..And ball or roller bearing for mounting  
pulley or guide roll on support

2 700/110 (0 OR, 2 XR)

Class 700 : DATA PROCESSING: GENERIC CONTROL SYSTEMS OR  
SPECIFIC APPLICATIONS

700/90 SPECIFIC APPLICATION, APPARATUS OR PROCESS

700/95 .Product assembly or manufacturing

700/108 ..Performance monitoring

700/109 ...Quality control

700/110 ....Defect analysis or recognition

2 700/169 (0 OR, 2 XR)

Class 700 : DATA PROCESSING: GENERIC CONTROL SYSTEMS OR  
SPECIFIC APPLICATIONS

700/90 SPECIFIC APPLICATION, APPARATUS OR PROCESS

700/95 .Product assembly or manufacturing

700/117 ..Particular manufactured product or operation

700/159 ...Machining

700/169 ....Supervisory control (e.g., plural tools or  
plural processors)

2 700/97 (0 OR, 2 XR)

Class 700 : DATA PROCESSING: GENERIC CONTROL SYSTEMS OR  
SPECIFIC APPLICATIONS

700/90 SPECIFIC APPLICATION, APPARATUS OR PROCESS

700/95 .Product assembly or manufacturing

700/97 ..Design or planning

about 2  
above 1  
abstract 1  
abutted 1  
accompanying 1  
accordance 1  
accordingly 1  
accuracy 3  
accurate 1  
accurately 3  
achieve 1  
action 1  
actual 1  
additional 1  
adjust 1  
adjusted 1  
adjustment 1  
adjustments 1  
advantages 1  
adversely 2  
affect 4  
aforementioned 1  
against 1  
aligned 1  
aligning 3  
alignment 11  
all 1  
along 2  
also 2  
altered 1  
alternately 1  
amount 1  
analytical 1  
and 65  
another 1  
another 6  
apad 1  
apparatus 1  
apparent 2  
appended 1  
applicability 2  
appreciate 3  
approach 1  
appropriate 2  
approximately 1  
are 20  
areas 1

art 5  
associated 3  
association 1  
attempts 1  
available 1  
axes 1  
axis 16  
backer 1  
background 1  
become 2  
beginning 1  
behind 1  
being 2  
between 8  
biases 1  
billet 1  
block 2  
body 9  
breaks 1  
brief 1  
bring 1  
but 3  
calibrale 1  
calibrate 1  
calibrating 5  
calibration 2  
can 4  
cannot 1  
cases 1  
cavity 1  
center 1  
centering 1  
claims 1  
coincident 1  
combination 1  
combinations 5  
commercially 1  
compensated 1  
complex 2  
complicated 3  
component 8  
components 29  
comprised 1  
condition 1  
conducting 1  
configured 1  
conjunction 1  
consisting 1

constructed 3  
construction 1  
consuming 1  
contact 1  
container 12  
contrast 1  
conventionally 1  
copper 4  
corrective 1  
correspondingly 1  
costly 2  
could 1  
coupled 4  
coupling 2  
critica 1  
critical 30  
criticas 1  
crosshead 11  
cycle 1  
cylindrical 1  
dadjusted 1  
data 1  
datum 5  
defects 1  
defines 1  
degree 3  
degrees 3  
description 5  
design 2  
desirability 1  
desired 1  
detail 3  
detailed 3  
determ 1  
determine 3  
determined 2  
determining 1  
developed 1  
device 4  
devices 5  
die 9  
difficult 1  
digital 1  
dimensional 1  
direct 1  
direction 1  
directions 1  
directly 1

disciplines 1  
disclosure 1  
discussion 1  
disposed 1  
distance 3  
drawings 3  
dtdesign 1  
due 1  
during 1  
each 15  
eccentric 1  
eccentricity 1  
edge 2  
effect 5  
eight 1  
either 1  
elevation 8  
embodiment 1  
embodiments 1  
employed 6  
end 1  
engages 1  
engineer 1  
enough 1  
essentially 1  
established 1  
estimate 1  
estimated 1  
etc 1  
evaluated 1  
evaluating 1  
evaluation 1  
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every 1  
example 4  
examples 1  
excessively 1  
exemplary 4  
exhibit 2  
experimentation 1  
extended 2  
extends 1  
extreme 1  
extremely 1  
extrusion 29  
fabrication 1  
face 2  
faces 1

facilitates 1  
features 1  
feet 4  
fegistfation 1  
field 1  
figure 26  
figures 1  
first 1  
fixed 1  
fixture 2  
flange 1  
floor 1  
focused 1  
for 23  
foregoing 1  
form 2  
formed 1  
forwardly 1  
found 3  
frame 1  
freedom 4  
frequently 1  
from 5  
front 9  
function 1  
further 2  
furthermore 1  
gains 1  
gauged 1  
generally 12  
geometry 2  
given 1  
greater 3  
half 2  
has 1  
hasenclever 1  
have 7  
having 1  
height 1  
hereinafter 2  
hollow 5  
hours 1  
housed 1  
houses 1  
how 3  
however 2  
iarge 1  
iaser 5

aterial 1  
identified 1  
identify 2  
identifying 4  
iimited 1  
illustfation 1  
illustrate 1  
illustrated 1  
illustrating 9  
illustration 1  
implementation 1  
impossible 1  
improve 1  
inch 1  
inchl 1  
include 2  
included 1  
includes 13  
including 2  
increasingly 1  
indicated 1  
indicating 1  
inhibit 1  
intended 3  
interact 1  
interactions 1  
interior 1  
into 5  
invention 16  
involved 1  
iongiludinal 1  
iongitudinal 3  
ioosely 1  
iower 1  
issues 1  
its 5  
jack 4  
known 3  
lasef 1  
laser 2  
lateral 1  
latter 1  
leading 1  
lengths 1  
less 1  
lhe 1  
life 1  
limit 1

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1mm 1  
location 1  
logical 1  
longitudinal 3  
machine 33  
main 5  
mandrel 7  
manner 1  
manufacture 2  
manufacturing 1  
massive 1  
material 1  
matingly 1  
maximum 1  
may 8  
means 1  
measurement 4  
measurements 3  
mechanic 1  
merely 1  
method 10  
methodologies 3  
methodology 5  
more 6  
mount 4  
mounting 1  
movable 2  
move 1  
movement 1  
moving 7  
must 1  
nature 1  
need 3  
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non 1  
not 6  
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number 1  
numeral 1  
numerous 1  
obtained 1  
obtaining 1  
offset 2  
oflen 1  
often 2  
ofthe 1  
oftheinvention 1

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only 2  
operable 1  
operate 1  
operation 2  
operative 1  
optionally 1  
ordinary 1  
orientation 2  
orthogonal 1  
other 2  
otherwise 1  
out 1  
output 8  
particularly 1  
page 11  
parallel 2  
part 2  
partial 1  
past 1  
pca 1  
perform 2  
permit 1  
permits 1  
perpendicular 3  
perspective 2  
piercer 4  
piercing 4  
pin 2  
place 1  
plan 2  
plane 1  
plate 1  
platen 5  
platens 3  
plurality 7  
podion 1  
portion 5  
position 17  
positioned 3  
positions 4  
possible 10  
ppco 2  
practice 1  
pre 1  
precise 1  
predetermined 2  
preferred 4

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pressure 1  
primary 1  
prior 1  
process 1  
processes 2  
produce 1  
produced 3  
producing 1  
product 1  
productivity 1  
products 1  
provided 3  
provides 2  
purposes 1  
quality 1  
quickly 2  
ram 6  
rear 5  
rearward 1  
rebuilding 1  
receive 1  
receiver 10  
ref 9  
reference 2  
referred 1  
regard 1  
registered 1  
registering 1  
registration 1  
relates 1  
relative 7  
remains 2  
render 1  
repeatability 3  
repeatable 1  
require 1  
requires 2  
respect 1  
result 1  
results 2  
retracted 2  
rods 1  
ruptures 1  
said 1  
scenarios 1

schematic 3  
scope 2  
screws 4  
second 1  
section 1  
sectional 1  
selectively 2  
set 11  
setting 2  
sevefal 1  
several 2  
shaped 1  
shifted 2  
shims 1  
shop 1  
should 1  
shown 3  
side 8  
simi 1  
similar 1  
simply 1  
situations 1  
skewed 1  
skill 1  
skilled 3  
sleeve 2  
sms 1  
some 1  
sometimes 2  
somewhat 1  
space 1  
spaced 1  
specific 1  
specifically 2  
stated 1  
stationary 1  
stem 9  
step 7  
steps 1  
stretched 1  
structure 4  
subsequent 1  
such 9  
suitable 1  
summary 1  
suppod 3  
support 2  
taken 3

tapered 1  
teachings 2  
technician 2  
tensioned 1  
than 1  
that 32  
the 274  
their 3  
theory 2  
there 2  
thereafter 1  
therefrom 1  
therein 1  
thereto 1  
these 5  
this 3  
thorough 1  
those 6  
thought 1  
three 2  
through 4  
tie 1  
time 1  
times 3  
tool 29  
tooling 6  
tools 3  
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trailing 1  
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translating 1  
transmitter 1  
ttl 1  
tube 1  
tubing 5  
two 3  
type 1  
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understanding 2  
understood 1  
undesired 1  
unfortunately 1  
uniformity 1  
uniformly 1  
upper 1  
upward 1  
upwards 1

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utilized 1  
variance 1  
various 8  
varying 2  
very 1  
via 1  
view 17  
virtually 1  
visualize 1  
was 4  
way 1  
ways 5  
wear 1  
weight 1  
were 1  
where 1  
wherein 6  
which 12  
while 3  
will 7  
wire 1  
with 11  
within 3  
without 1